

In the Claims:

Please amend Claims 1, 15 and 44, cancel Claims 8, 10-11, 22, 24-25 and 30-43; and add Claims 45-62, all as shown below. Applicant respectfully reserves the right to prosecute any originally presented claims in a continuing or future application.

1. (Currently Amended) A method for dynamically binding a user interface to information stored in a data source, comprising:

~~presenting displaying~~ a user interface ~~to a user,~~ wherein the user interface is operable to ~~present display~~ information in a web page, wherein the information is stored in a first data source on a business object to the user,

collect user additional information from ~~[[the]]~~ a user, and

store the user additional information in the first data source on the business object;

~~defining~~ providing a data binding tag that defines

a rendering boundary within the web page for rendering the information, and

rules to be applied when the information is rendered, wherein the data binding

tag includes a plurality of attributes;

specifying, ~~a first action~~ by the data binding tag, a first action which includes reading or updating the information stored in the first data source, wherein at least one of the attributes is associated with the first action;

~~specifying, using a scripting language, at least one attribute on the data binding tag to reference the first data source associated with the first action using a script associated with the first action, wherein the first data source is in the business object; and~~

rendering each item in the first data source on the web page in the user interface with a markup language according to the boundary and the rules defined by the data binding tag and based at least partially on the first action, including evaluation of the script; and

~~wherein the first action can set or get the first data source.~~

2. (Previously Presented) The method of claim 1 wherein:
the data binding tag allows for the specification of JavaServer Page action elements.
3. (Previously Presented) The method of claim 1 wherein:

the scripting language is based on the Javascript language.

4. (Original) The method of claim 1 wherein:
the first data source identifies one of: 1) an object field; 2) an object property; and 3) an Extensible Markup Language document element.
5. (Original) The method of claim 4 wherein:
an object is a JavaBean.
6. (Original) The method of claim 1 wherein:
the first data source is one of: 1) an array; 2) a list; 3) a map.
7. (Previously Presented) The method of claim 1 wherein:
the markup language can include at least one of: Hypertext Markup Language (HTML), Dynamic HTML, Extensible HTML, and Extensible Markup Language.
8. (Canceled)
9. (Original) The method of claim 1 wherein:
the first action can have at least one child action.
- 10-11. (Canceled)
12. (Original) The method of claim 9 wherein:
the at least one child action can refer to the first data source with a context defined by the first action.
13. (Original) The method of claim 9 wherein:
the at least one child action can perform at least one of the following actions on the first data source: 1) set; 2) get; 3) sort; and 4) filter.
14. (Original) The method of claim 9, further comprising:

rendering a list or a table based on the first data source.

15. (Currently Amended) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

~~present-display~~ a user interface, ~~to a user~~ wherein the user interface is operable to
~~present-display~~ information in a web page, wherein the information is stored in a data source on a business object to the user,

collect user additional information from [[the]] a_user, and store the user additional information in the data source on the business object;

~~define~~ provide a data binding tag that defines
a rendering boundary within the web page for rendering the information,
and

rules to be applied when the information is rendered,

~~wherein the data binding tag specifies a first action and~~ wherein the data

binding tag includes a plurality of attributes;

specify, by the data binding tag, a first action which includes reading or updating the information stored in the data source, wherein at least one of the attributes is associated with the first action;

specify, using a scripting language script, at least one attribute on the data binding tag to reference ~~a first the data source associated with the first action, wherein the first data source is in the business object; and~~

render each item in the first data source on the web page in the user interface with a markup language according to the boundary and the rules defined by the data binding tag and based at least partially on the first action, including evaluation of the script; and
~~wherein the first action can set or get the first data source.~~

16. (Previously Presented) The machine readable medium of claim 15 wherein:
the data binding tag allows for the specification of JavaServer Page action elements.
17. (Previously Presented) The machine readable medium of claim 15 wherein:
the scripting language is based on the Javascript language.

18. (Original) The machine readable medium of claim 15 wherein:
the first data source identifies one of: 1) an object field; 2) an object property; and 3) an Extensible Markup Language document element.
19. (Original) The machine readable medium of claim 18 wherein:
an object is a JavaBean.
20. (Original) The machine readable medium of claim 15 wherein:
the first data source is one of: 1) an array; 2) a list; 3) a map.
21. (Previously Presented) The machine readable medium of claim 15 wherein:
the markup language can include at least one of: Hypertext Markup Language (HTML), Dynamic HTML, Extensible HTML, and Extensible Markup Language.
22. (Canceled)
23. (Original) The machine readable medium of claim 15 wherein:
the first action can have at least one child action.
- 24-25. (Canceled)
26. (Original) The machine readable medium of claim 23 wherein:
the at least one child action can refer to the first data source with a context defined by the first action.
27. (Original) The machine readable medium of claim 23 wherein:
the at least one child action can perform at least one of the following actions on the first data source: 1) set; 2) get; 3) sort; and 4) filter.
28. (Original) The machine readable medium of claim 23, further comprising instructions that when executed cause the system to:
render a list or a table based on the first data source.

29-43. (Canceled)

44. (Currently Amended) A system for dynamically binding a user interface to information, comprising:

- a computer including a computer readable medium and processor operating thereon;
- a user interface that is operable to

- present-display information in a webpage, wherein the information is stored in a business object to a user,

- collect ~~user~~ additional information from the user, and

- store the ~~user~~ additional information within the business object;

- a plurality of data binding tags written in a first programming language stored on the computer readable medium wherein each data binding tag

- defines a rendering boundary within a web page for rendering the information and rules to be applied when the information is rendered,

- includes a lifecycle associated therewith,

- includes a plurality of attributes, and

- specifies an action to be performed on the business object wherein the action includes ~~setting or getting~~ reading or updating information from the business object including the ~~user~~ additional information;

- an expression language that can be used to evaluate expressions on specified business objects, wherein each expression specifies a business object in which the expression is to be evaluated; and

- a markup language that can be used to render the specified business objects on the web page in the user interface, according to the render boundary and the rules defined by the data binding tag.

45. (New) The method of claim 1 wherein the additional information includes an expression that is stored in the data source and wherein the expression is evaluated to produce a value when the additional information is rendered.

46. (New) The method of claim 1 wherein the data binding tag includes a repeater element wherein data associated with the repeater element is rendered multiple times according to the repeater element's lifecycle.

47. (New) The method of claim 46 wherein the repeater's lifecycle includes a plurality of states including an item state during which the repeater element determines, for each of the data associated with the repeater element, a user interface with which to render the data and permission to render the data in the user interface.

48. (New) The machine readable medium of claim 15 wherein the additional information includes an expression that is stored in the data source and wherein the expression is evaluated to produce a value when the additional information is rendered.

49. (New) The machine readable medium of claim 15 wherein the data binding tag includes a repeater element wherein data associated with the repeater element is rendered multiple times according to the repeater element's lifecycle.

50. (New) The machine readable medium of claim 49 wherein the repeater's lifecycle includes a plurality of states including an item state during which the repeater element determines, for each of the data associated with the repeater element, a user interface with which to render the data and permission to render the data in the user interface.

51. (New) A system for dynamically binding a user interface to information stored in a data source, comprising:

- a web page that includes a plurality of data binding tags, wherein the data binding tags bind information stored in a data source on a business object to the web page;

- a user interface, wherein the user interface is operable to

- display the web page including the information that is stored in the data source on the business object,

- receive additional information from a user through fields in the web page, and
 - store the additional information in the data source on the business object;

wherein when the web page is displayed, the plurality of data binding tags are processed, which includes rendering the information stored in the data source that is referenced by each of the data binding tags, according to

a rendering boundary defined by that data binding tag, and

rules that define when the information is rendered for that tag, based on a current state of that tag; and

wherein when the additional information is received from a user through a field in the web page, a data binding tag associated with that field is processed to perform an action specified by that data binding tag, wherein the action includes one or more of updating or reading from the data source referenced by the data binding tag.

52. (New) The system of claim 51 wherein:
each data binding tag references the data source using a script.
53. (New) The system of claim 51 wherein:
the data source identifies one of an object field, an object property, and an Extensible Markup Language document element.
54. (New) The system of claim 51 wherein:
the data source is one of an array, a list and a map.
55. (New) The system of claim 51 wherein:
the web page is rendered in one or more of Hypertext Markup Language (HTML), Dynamic HTML, Extensible HTML, and Extensible Markup Language.
56. (New) The system of claim 51 wherein:
the action can include a hierarchy of actions.
57. (New) The system of claim 56 wherein:
each action in the hierarchy of actions can refer to the data source with a context defined by that action.

58. (New) The system of claim 56 wherein:
each action in the hierarchy of actions can include one or more of set, get, sort, and filter.
59. (New) The system of claim 51 wherein:
a list or a table can be rendered in the web page based on the data source.
60. (New) The framework of claim 51 wherein the additional information includes an expression that is stored in the data source and wherein the expression is evaluated to produce a value when the additional information is rendered.
61. (New) The framework of claim 51 wherein each data binding tag can include a repeater element wherein data associated with the repeater element is rendered multiple times according to the repeater element's lifecycle.
62. (New) The framework of claim 61 wherein the repeater's lifecycle includes a plurality of states including an item state during which the repeater element determines, for each of the data associated with the repeater element, a user interface with which to render the data and permission to render the data in the user interface.